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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,258	09/21/2005	Katsuyuki Baba	Q89658	1146

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EXAMINER	
MARC, MCDIEUNEL	

ART UNIT	PAPER NUMBER
3664	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,258	BABA ET AL.	
	Examiner	Art Unit	
	MCDIEUNEL MARC	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2006*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9-21-2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-9 are pending.

2. The abstract of the disclosure is objected to because of the word invention. Correction is required. See MPEP § 608.01(b).

3. Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 3. See MPEP § 608.01(n). Accordingly, the claim 9 not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim 9, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,232735. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent are broader than the claims of this application.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Ghdoussi et al. (US 6951535).

As per claim 1, Ghdoussi et al. teaches robot having a remote control system for robot (see fig. 7, elements 50 and 52) comprising: a robot remote control apparatus for remotely

controlling a robot and a robot apparatus controlled based on data from said robot remote control apparatus (see fig. 7, elements 50, 52, 16, 18, 20, 22 and 24); wherein said robot remote control apparatus includes a remote instruction unit for generating control data for said robot apparatus, a first computer unit for inputting and processing said control data (see fig. 7, element 50), and a first mobile transmission unit for transmitting said control data to a base station connected to a public transmission network (see fig. 7, particularly elements 140 and 148); said robot apparatus includes a second mobile transmission unit for receiving said control data transmitted from the base station connected to the public transmission network (see fig. 7, elements 52, 144, 140 and 148), and a second computer unit for processing said control data and controlling a mechanism portion (see fig. 7, elements 52, 52, 16, 18, 20, 22 and 24); said mechanism portion includes one or two heavy-load working arms, one or two light-load working arms, and a traveling system, all of which are controlled by said second computer unit; and said second computer unit controls said one or two heavy-load working arms, said one or two light-load working arms, and said traveling system on the basis of the control data for said robot apparatus (see fig. 7, elements 52, 52, 16, 18, 20, 22 and 24, wherein elements 16 and 18 have been considered as heavy load and 20 and 22 light load).

As per claim 2, Ghdoussi et al. teaches a robot wherein said one or two heavy-load working arms and said one or two light-load working arms, respectively, include a basal arm, a branch arm, a wrist portion and a finger portion (see figs. 6 and 7).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghodoussi et al. in view of Szydel (US 5777267).

As per claims 3 and 4, Ghdoussi et al. teaches essential feature substantially wherein working arms are driven by hydraulic power, and said one or two light-load working arms are driven by electric power; crawlers driven by hydraulic power.

Szydel teaches a robot wherein working arms are driven by hydraulic power, and said one or two light-load working arms are driven by electric power; crawlers driven by hydraulic power (col. 1, lines 41-55 and col. 2, line 3 wherein the snake has been considered as crawlers).

It would have been obvious to one of ordinary skill in the art the time of the invention to modify the teaching of Ghodoussi et al. with the teaching Szydel in order to introduce the hydraulic and the electric power, because this modification would have increased Ghodoussi's et al. teaching so that the sanke receive the necessary power to crawl, thereby improving the reliability of the remote control system for robot.

14. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghodoussi et al. in view of Wang et al. (US 20020111713 A1).

As per claim 5, Ghdoussi et al. teaches substantially a robot wherein said robot apparatus includes a carriage base driven by said traveling system, a cabin on said carriage base, and further includes an on-board instruction unit for controlling said one or two heavy-load working arms, said one or two light-load working arms and said traveling system in said cabin.

Wang et al. 20020111713 A1, teaches a robot wherein said robot apparatus includes a carriage base driven by said traveling system, a cabin on said carriage base (see fig. 1, element 14), and further includes an on-board instruction unit for controlling said one or two heavy-load working arms see fig. 1, element 20), said one or two light-load working arms and said traveling system in said cabin (see fig. 1, as noted above).

It would have been obvious to one of ordinary skill in the art the time of the invention to modify the teaching of Ghodoussi et al. with the teaching Wang et al. in order to introduce the carriage base, because this modification would have increased Ghodoussi's et al. teaching so that the robot can move, thereby improving the reliability of the remote control system for robot.

15. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ghdoussi et al. in view of Lai et al. (Evaluating Control Modes for Constrained Robotic Surgery, 2000).

As per claim 6, Ghdoussi et al. teaches substantially a robot wherein said mechanism portion includes a plurality of cameras for picking up an object and converting the same into image signals (see fig. 1, wherein one of the end effector is a camera, therefore adding more than one camera would have been by choice), said second computer unit transmits said image signals via said second mobile transmission unit and said robot remote control apparatus receives signals transmitted from said second mobile transmission unit (see fig. 7, elements 52, 144 and 140), but Ghdoussi et al. fail to teach a plurality of microphones for converting sound and noise generated in the surroundings into sound signals, displays said image signals on a monitor display and sends out said sound signals through a speaker as sound.

Lai et al. teaches a plurality of microphones for converting sound and noise generated in the surroundings into sound signals (see section 2.1, particularly voice commands and fig. 1, particularly voice feedback and the headset peace which contains a combination of microphone and speaker, but having more than one microphone falls under design choice), displays said

image signals on a monitor display and sends out said sound signals through a speaker as sound (see fig. 1, surgeon unit and display).

It would have been obvious to one of ordinary skill in the art the time of the invention to modify the teaching of Ghodoussi et al. with the teaching Lai et al. in order to introduce the the voice commands capability, because this modification would have increased Ghodoussi's et al. teaching so that sound could be send and receive, thereby improving the reliability of the remote control system for robot.

As per claim 7, Ghdoussi et al. teaches a robot wherein said remote instruction unit includes rotatable and movable steering arms, a plurality of sensors disposed in said steering arms (see fig. 7, element 56, particularly electric sensors), and a plurality of instruction switches for carrying out ON/OFF instructions, and wherein control data for said robot apparatus is generated on the basis of values of said rotation and movement detected by said plurality of sensors and ON/OFF of said plurality of instruction switches (see col. 1, lines 41-55, wherein the ON/OFF being imbedded into movements of a robot that are programmed, that is a plurality of subroutines run into a microprocessor and directed in a predetermined and desired path or pattern so that various tasks may be accomplished).

As per claim 8, Ghdoussi et al. teaches a robot wherein said on-board instruction unit includes rotatable and movable steering arms, a plurality of sensors disposed in said steering arms (see fig. 7, element 56, particularly electric sensors), and a plurality of instruction switches for carrying out ON/OFF instructions, and wherein control data for said robot apparatus is generated on the basis of values of said rotation and movement detected by said plurality of

sensors and ON/OFF of said plurality of instruction switches (see col. 1, lines 42-53, wherein the ON/OFF being imbedded into movements of a robot that are programmed, that is a plurality of subroutines run into a microprocessor of the computer and directed in a predetermined and desired path or pattern so that various tasks may be accomplished) as noted above.

As per claim 9, Ghdoussi et al. teaches a robot wherein said rotatable and movable steering arms are turned into a fixed state or a released state by a fixing mechanism such as a disk pad brake having a disk portion driven by a actuator (see col. 5, lines 66 – to – col. 6, line -20 and fig. 7, wherein the gear assembly 136 has been considered as disk).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571)272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/McDieunel Marc/
Examiner, Art Unit 3664

Monday, January 05, 2009
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664